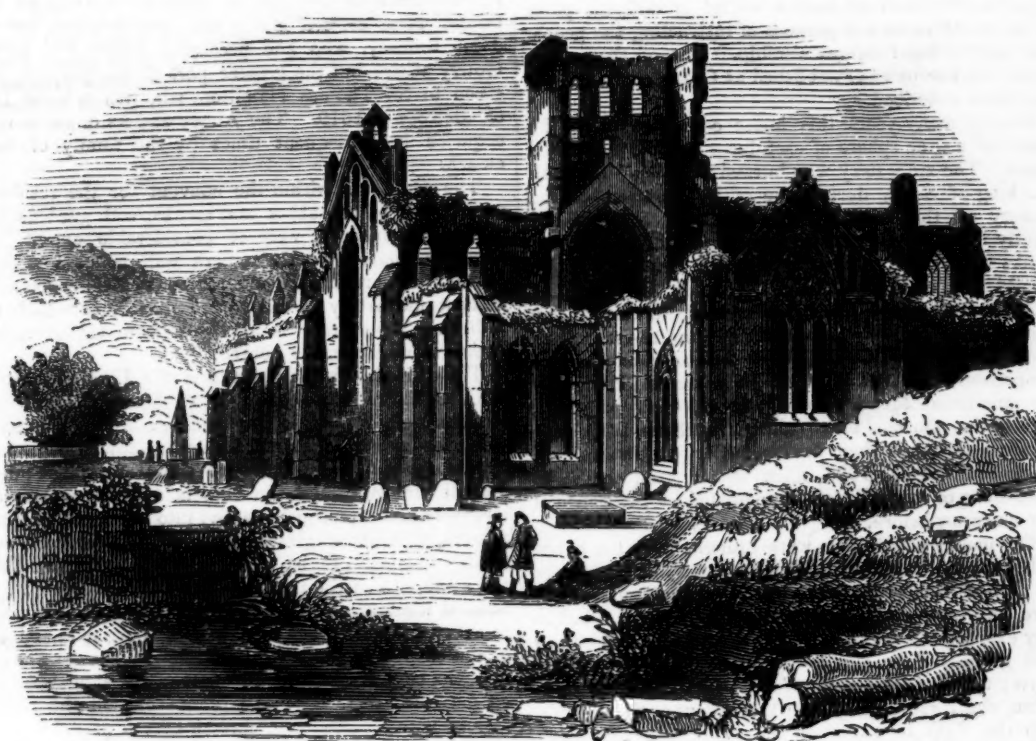




## MELROSE ABBEY.



PRESENT APPEARANCE OF THE RUINS.

If thou wouldst view fair Melrose aright  
Go visit it by the pale moonlight;  
For the gay beams of lightsome day  
Gild, but to flout, the ruins grey.  
When the broken arches are black in night,  
And each shafted oriel glimmers white;  
When the cold light's uncertain shower  
Streams on the ruined central tower;  
When buttress and buttress, alternately,  
Seem framed of ebony and ivory;  
When silver edges the imagery,  
And the scrolls that teach thee to live and die  
When distant Tweed is heard to rave,  
And the owl to hoot o'er the dead man's grave,  
Then go—but go alone the while—  
Then view St. David's ruined pile;  
And, home returning, soothly swear  
Was never scene so sad and fair!

SIR WALTER SCOTT. *Lay of the Last Minstrel.*

In a beautiful vale on a rich tract of land, on the south side of the Tweed, is situated the ancient village, and still more ancient ruined Abbey of Melrose. The district of Roxburghshire to which they belong is said to be unexampled in beauty and fertility, and in interesting historical and classic associations.

In spite of modern improvements, the old village still preserves much of its curious antique character. It is built in the form of a triangle with small streets leading out at the corners. Many of the houses have evidently been constructed of the ruins of the old abbey. The centre of the triangle is marked by a venerable cross, which is supposed to be coeval with the abbey. It was

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customary to plant a cross in the principal avenues leading to an abbey, so as to indicate its precincts to pilgrims; but most of these crosses have disappeared, and that of Melrose owes its preservation only to a special endowment. A neighbouring field, called the "Corserig," is held by the proprietor on the sole condition that he maintain the cross in good repair.

The situation of Melrose, like that of most places where the monks permanently settled, is extremely beautiful and salubrious, fertile and secluded. It is sheltered on every side by hills, the most remarkable of which are the Eildons, called Trimontium by the Romans, who settled a military station on the loftiest of the three peaks, which commands a most extensive view, including a great portion of the south-eastern province of Scotland.

The first seat of a religious institution was at Old Melrose, situated about two miles to the east of the village, on the south of the Tweed, which, taking a remarkable sweep, nearly encircles the ground on which which it stood.

The smooth, sloping sides of this river peninsula, which rises to a gentle eminence in the centre, are gracefully contrasted with the opposite banks, which are high, abrupt, rocky, fringed with wild shrubs, and overhung with woods. In ancient times, when all the surrounding country was a thick forest, this spot is said to have presented an open surface of green turf, whence it derived its name, which is compounded of two Celtic words, *mull*, signifying bare, and

*rhos, a promontory.* The agreeableness of the place, no less than its retired situation, must have recommended it to the missionaries, who, settling here, first instructed the inhabitants of this part of Britain in the knowledge of the Christian religion\*.

In the year 635, Oswald, the Anglo-Saxon king of Northumberland, while in the enjoyment of an asylum among the Scots or Picts, having embraced the religion of the Gospel, he prevailed on some of the brethren of the Culdee monastery in Icolmkill to assist him in converting his subjects. In the course of time their success was so great, that churches were built and societies of priests or monks settled in different parts of the country, for the purpose of instructing the people and celebrating religious worship. One of these religious fellowships was established at Old Melrose, on the site above described.

During many years this house continued to be the centre of a wide sphere of usefulness in those benighted times. The monastery was burned in 839 by Kenneth II., king of Scots, during one of his invasions of the country of the Saxons: the monastery also suffered greatly from the Danish invaders, so much so that the monks were either unable or thought it inexpedient to rebuild their cells.

At length, after a few attempts made to restore this ancient monastery, it was abandoned, and re-established by David I. in 1136, in a level meadow contiguous to the present village of Melrose. The monks, invited by the munificent founder to occupy the new buildings, were of the reformed class called Cistercians, from their having established their first monastery at Cîteaux, in France, in the year 1098, when they revived the strict observance of monastic life as regulated by St. Benedict five centuries before.

The monks of Melrose were brought from the abbey of Rievaulx in the North Riding of Yorkshire, and were the first of this order who went into Scotland. They were not long established in the new institution before they experienced the bounty of the royal founder. They were granted "the lands of Melrose, Eldun, and Demevie; the lands and wood of Galtenside, with the fishings of the Tweed, along the whole extent of those lands, with the right of pasturage and pannage in the king's forests of Selkirk, Traquair, and in the forest lying between the Gala and the Leader, and also the privilege of taking wood for building and burning from the same forests." Succeeding monarchs and nobles bestowed on the monks of Melrose numerous other privileges and several churches, so that during the twelfth and thirteenth centuries, they had accumulated vast possessions and various immunities. They possessed lands in Ayr, Dumfries, Selkirk, Berwick, &c. In 1172 Jocelin, bishop of Glasgow, granted them a place called Hassendean, for the purpose of establishing a house of hospitality for wayfarers. Whereupon the monks settled a cell at Hassendean, where several monks went to reside for the purpose of accommodating pilgrims and relieving distressed strangers. It appears from the *Chronicle of Melrose*†, that the monastery itself became a species of inn, for the use of both poor and rich.

Little mention is made of Melrose in the history of the fifteenth century, but in the succeeding half century the Reformation commenced the work of demolition in the southern part of Scotland. In 1545 a great part of the monastery of Melrose was destroyed by Sir Ralph Eure and Sir Bryan Layton. In the same year Melrose,

with its monastery, was again wasted by the English army, under the Earl of Hertford, and in a few years afterwards it sustained the attacks of the reformers, or rather, was pillaged by the nobility and their military retainers. By the Act of Annexation of religious houses and their property to the crown, the abbey of Melrose, its lands and revenues, fell into the hands of Queen Mary, who conferred them on James, Earl of Bothwell; but he lost them by forfeiture in 1568. James Douglas, the son of William Douglas of Lochleven, was now created commendator of Melrose; by the influence of the Earl of Morton. At length the estates were erected into a temporal lordship for Sir John Ramsey, who had protected James VI. in the Gowry affair; but the greater part of the property was given to Sir Thomas Hamilton, who was created Earl of Melrose in 1619. The Abbey and its domains were acquired in subsequent times by the family of Buccleuch.

The buildings within the convent for the residence and service of the abbot and monks, with gardens and other conveniences, were of considerable extent, and formerly inclosed within a high wall about a mile in circuit. At present the sole remnant of this once magnificent monastery is the ruined church, of which the following description is abridged from the Rev. Mr. Morton's work already quoted.

The church is in the usual form of a Latin cross, with a square tower in the centre, of which only the west side remains, raised upon a lofty pointed arch. The nave, extending westward from the central tower, consists of a middle avenue, and two narrow side aisles. The pillars are all clustered, and the corbels and key-stones are elegantly and grotesquely carved into the forms of fruit, flowers, vegetables, masks, historical figures, and religious emblems. Eight small square chapels run along the south side of the nave, each of which is lighted by a pointed window, the tracery of which is rich, and varied in every window. The west end of the nave, and five of the chapels included in it, are now roofless. The end next the central tower is arched over, the side aisles and chapels with their original Gothic roof, and the middle avenue with a plain vault thrown over it in 1618, when this place was fitted up for religious worship.

The transept has an arcade in the east side of it next the choir. The north transept is roofless; but the original ribbed and groined vault still covers part of the south transept. It has eight windows, and the tracery of one of them represents a crown of thorns. On the west side, upon two elevated niches in the wall, are statues of St. Peter and St. Paul; the one having a book and keys, the other a sword. In the north end is a recess in the wall with pedestals for small statues. Under this is a Saxon door opening into a low vaulted chamber, called the wax-cellar, where the tapers and other things used in religious worship are supposed to have been kept. Near this was the remains of a turnpike stair; under the first step of which there was formerly a small concealed vault; probably an armarium, in which the most valuable effects of the monastery might have been secreted in times of disturbance and danger.

The choir and chancel are built in the form of half a Greek cross. Here the greatest architectural taste is displayed, especially in the structure of the eastern window, which is very beautiful, the tracery being exceedingly light and graceful. The original stone roof, beautifully fretted and sculptured, still crowns the east end of the chancel; and on the floor in the south side of it is a large slab of polished marble, of a greenish black colour, and of a semi-hexagonal form, which is believed to cover the dust of King Alexander II., who was buried beside the high altar of this church in 1249.

The walls are strengthened on the outside with buttresses, some of which shoot up into elegant pinnacles;

\* Rev. James Morton. *Monastic Annals of Teviotdale.*

† "In the principal monasteries a chronicle was kept, in which the monks recorded in the Latin language the most remarkable events, both of general and local interest, that occurred within their knowledge. The *Chronicle of Melrose Abbey*, or rather a considerable part of it, was fortunately preserved from that destruction to which so many of the books found in monasteries were consigned at the Reformation, and is considered as one of the most authentic sources of Scottish history; but it is written in a barbarous style, and with too great brevity except towards the end. It commences with the year 735 and breaks off abruptly in 1270."—MORTON.

and when the building was entire every buttress and even every pillar in the interior of the church shot up through the roof into a pinnacle, adorned with niches, and terminating in a sharp crocketed point, springing from the midst of four miniature crocketed pediments. Flying buttresses, stretching from pinnacle to pinnacle, impended over the roof of the chapels in the nave and even the roof of all the side aisles. Some of these and many of the pinnacles remain, and are highly ornamental.

The outside of the fabric is everywhere profusely embellished with niches, having canopies of an elegant design, exquisitely carved, and some of them still containing statues. The east end and south transept are richest in sculpture. Around the pointed arch of the east window is a range of niches with mutilated statues in some of them; and in the centre over the point of the window, are two figures sitting, supposed to represent David I. and his queen, Matilda.

In the south transept is a deeply and richly moulded Gothic portal which is now the principal entrance to the church. Over the point of the arch is carved a shield bearing the royal arms of Scotland. In the front of the building over this doorway is a magnificent window having four upright bars which branch out and interlace each other at the top in a variety of graceful curves. Over this window is a highly wrought niche that formerly held an image of the Saviour; on either side of which and upon the nearest buttresses, are other niches which were once filled with figures of the twelve Apostles. The carving upon the pedestals and canopies of the niches exhibits quaint and curious figures and devices. On the buttress at the west corner is a figure in monastic costume supporting a pedestal, and holding a scroll with this inscription, *cu: benit: jes: seq: cessabit: umbra:* that is, "When Jesus came, the darkness of the world ceased." There are other corresponding statues bearing inscriptions.

The buttresses and pinnacles on the east and west sides of the same transept present a curious and entertaining variety of sculptured forms of plants and animals, both real and fabulous. Under some of the statues and pillars are figures of men, some with their legs crossed, and others leaning on one knee, putting back one of their hands to support their burdens, the muscles of their neck standing out as crushed with pressure, and gaping with their mouths. On the south-east side are a great many musicians admirably cut, with much pleasantness and gaiety in their countenances, having their instruments in their hands, such as the bagpipes, fiddles, dulcimers, organs, and the like; also several nuns with their veils, and others richly dressed. On the same transept is a group executed with great spirit, consisting of a lame man on the shoulders of one that is blind. One of the most finely ornamented niches is on the side of a pinnacle over the nave, the canopy of which represents a temple, under which is an image of the Virgin, with the infant Jesus on her left arm.

There are stone spouts stretching out from the eaves, to carry the water from the roof, which are carved in the forms of animals and strange figures with gaping mouths. One of these represents a sow playing on a bagpipe.

The cloisters formed a quadrangle on the north-west side of the church, one side of the square extending the whole length of the nave, which on this side has no buttresses. There remain no vestiges of the arches of the cloister; but on the walls of the church there are false arches, with seats in them, ornamented in a more florid style than the rest of the building; especially seven of them, which are ranged along the wall of the north transept. The mouldings of these arches are composed of running flowers and foliage; and over them is a beautiful frieze, in square compartments, each representing a cluster of some plant, flower, or other figure, among

which are lilies, ferns, grapes, houseleeks, oak-leaves with acorns, palm, holly, fir-cones, scallops, quatrefoils, &c. An arched doorway, leading from the cloisters at the angle formed by the transept, is exquisitely carved. The foliage upon the capitals of the pilasters, on each side, is so nicely chiseled, that a straw can be made to penetrate through the interstices between the leaves and stalks.

The name of one of the architects of this venerable pile still remains in an inscription on the wall on the left, in entering by the south transept. The legend is as follows:

John : murdo : sum : tym : callit :  
was : I : and : born : in : parysse :  
certainly : and : had : in keeping :  
al : mason : werk : of : santan  
drops : ye : hpe : kirk : of : glas  
gu : melros : and : paslay : of :  
nyddysdapl : and : of : galway :  
pray : to : god : and : mari : baith :  
and

Two lines are here obliterated, but are thus supplied by tradition:

Sweet : Sanct : John : keep : this : haly : kirk :  
fra : shaith.

Much has been done in recent times to preserve this, the most beautiful ecclesiastical structure that was ever reared in Scotland. It is somewhat remarkable, that it is only within the date of the present century that Melrose Abbey became an object of interest to the tourist, and it will be readily supposed that this was in consequence of the publication of the *Lay of the Last Minstrel*, by Sir Walter Scott, whose poetical description induced the visits of strangers from all quarters.

I HAVE been walking to-day to Windermere; and went out on a little rude piece of stones into the lake, to watch what is to me one of the most beautiful objects in nature, the life of blue water amidst a dead landscape of snow; the sky was bright, and the wind fresh, and the lake was dancing and singing as it were, while all along its margin lay the dead snow covering everything but the lake, plains, and valleys, and mountains. I have admired the same thing more than once by the sea side, and there the tide gives another feature in the broad band of broad shingles below high-water-mark, interposed between the snow and the water.—  
DR. ARNOLD.

#### VISIT TO A WELSH MOUNTAIN QUARRY.

\*\*\*\* It was a birth-day holiday, and we agreed to devote the morning to a geological excursion to the Blue-Stone Quarries up in the mountains, (about two miles from Denbigh.)

\*\*\*\* Within half a mile from the quarries we were obliged to leave the carriage, on account of the badness of the road, and proceeded on ponies. The quarry-men seemed much pleased at our visit, and with their assistance I collected some very curious specimens, unlike any I have seen before. The stone is a kind of coarse slate. They raise it in slabs of from six to twenty feet in length and breadth. The thickness of these slabs varies from two inches to a foot, and the quarry-men do not reduce them to any required size, but take them as they are deposited in thick or thin strata.

The house, in which the quarry-men reside from Sunday night to the following Saturday, is built of about ten slabs; six forming the walls, and four the roof. Their beds are also slabs of slate, strewn with turf and heather. They spend their Sundays at Nant-Glyn, a village about four miles from the quarries, and from thence bring in wall-lets their food for the week. They are clever, intelligent men, and gave me a great deal of scientific information; one of them indeed told me he "had tried to analyse the slate, and was not quite sure whether there was not mica in it."

E. M. M.

## ON THE HYPOTHESIS OF A CENTRE OF GRAVITY TO THE UNIVERSE.

Gravitation is a force which is mixed up with everything that exists in the heavens or on earth, which pervades every atom, rules the motions of animate and inanimate beings, and is as sensible in the descent of a rain drop as in the falls of Niagara, in the weight of the air as in the periods of the moon. Gravitation not only binds satellites to their planet, and planets to the sun, but it connects sun with sun throughout the wide extent of creation, and is the cause of the disturbances, as well as the order, of nature: since every tremor it excites in any one planet is immediately transmitted to the farthest limits of the system, in oscillations, which correspond in their periods with the cause producing them, like sympathetic notes in music, or vibrations from the deep tones of an organ.

The heavens afford the most sublime subject of study which can be derived from science. The magnitude and splendour of the objects, the inconceivable rapidity with which they move, and the enormous distances between them, impress the mind with some notion of the energy that maintains them in their motions, with a durability to which we can see no limit. Equally conspicuous is the goodness of the great First Cause, in having endowed man with faculties, by which he can not only appreciate the magnificence of his works, but trace, with precision, the operation of his laws, use the globe he inhabits as a base wherewith to measure the magnitude and distance of the sun and planets, and make the diameter of the earth's orbit the first step of a scale by which he may ascend to the starry firmament. Such pursuits, while they ennoble the mind, at the same time inculcate humility, by showing that there is a barrier which no energy, mental or physical, can ever enable us to pass; that, however profoundly we may penetrate the depths of space, there still remain innumerable systems, compared with which, those apparently so vast must dwindle into insignificance, or even become invisible; and that not only man, but the globe he inhabits—nay, the whole system of which it forms so small a part—might be annihilated, and its extinction be imperceptible in the immensity of creation.—SOMERVILLE'S *Concession of the Physical Sciences*.

THE stupendous and variegated fabric of the universe is equally august and incomprehensible. The complicated scenery, on a general view, dazzles rather than enlightens, and from the limited structure of our faculties, the whole seems more calculated to perplex the mind, than to elevate its powers, or regulate its inquiries. Even those objects with which we are most familiar, by their vicinity and aptitude to our senses, and the perfect exercise of these on whatever comes within their cognizance, are comparatively but little known; and our senses, though the primary sources of all intelligence, it were not difficult to show, by a brief analysis of their respective operations, are like every other part of our frame, extremely impotent and contracted. Much ignorance originates in a partial comprehension of things with which we are daily conversant. And how, therefore, without higher means of information and superior powers, can we be supposed to judge correctly of those things to which none of our senses can have competent access. Can our weak and benighted understandings, incapable as they are of explaining the mysteries contained in a drop of water, a grain of dust, or a blade of grass, marshal the stars of light, analyze the orbs of heaven, or adjust the innumerable systems which crowd the regions of space? Their numbers and distances, their magnitudes and radiance, the celerity of their movements, together with their regularity, serenity, and uniform appearance, strike our minds with astonishment and admiration, but still leave them in a state of uncertainty and suspense.

The objects which we commonly call great, says an ingenious writer, vanish, when we contemplate the vast body of the earth; and the terraqueous globe itself is soon lost in the solar system. In some parts it is seen as a distant star; in others it is unknown, or visible only at rare times to vigilant observers. The sun itself dwindles into a star; Saturn's vast orbit, and the orbits of all the comets, crowd into a point, when viewed from numberless spaces between the earth and the nearest of the fixed stars. Other suns kindle light to illuminate their systems, while our sun's rays are unperceived; but they also are swallowed up in the vast expanse. Even all the systems of the stars that sparkle in the clearest sky, must possess a corner only of that space, through which such systems are dispersed; since more stars are discovered in one constellation, by the telescope, than the naked eye perceives in the whole heavens. After we have risen so high, and left all definite measures

far behind us, we find ourselves no nearer to a term or limit; for all this is nothing to what may be displayed in the infinite expanse beyond the remotest stars that have hitherto been discovered.

This magnificent fabric is allotted out in detached portions to created beings, but it is in the unity of the stupendous whole that sovereign perfection pre-eminently shines. All these systems of worlds resemble, though probably on a large scale, that to which we belong, since in each, the bodies of which it is composed revolve round a common centre, as the planets and comets do round the sun. It is even probable that several individual systems concur in forming others more general and extended throughout the regions of immensity. Those, for instance, that are comprehended in the milky-way, perhaps make component parts of a more enlarged system; and this again may belong to other ways, with which it constitutes an entire fabric, or a vast machine in constant motion, and acting by immutable laws.

Here then we may conceive the Milky-Way made up of various systems, each of which has its centre of revolution; and the whole, taken together, still making but a small part of a greater system in which it is included, with an infinity of others of a similar description.

Thus everything probably revolves,—the earth round the sun, the sun round the centre of his system; that round a centre in common to it with other systems; this group or assemblage about a common centre, with a prodigious number of the same kind; and where is the boundary of the whole? We cannot suppose, that in the solar system, so many bodies, the sum of whose masses greatly exceeds that of the sun, should exactly revolve in their orbits if he were withdrawn. With how much more reason then ought we to invest the vast systems of fixed stars with a central body, powerful enough to regulate all their motions?

But what shall we say of our assemblage of systems of milky-ways, considered as a whole? What disorder must not arise, were we to deprive them of particular as well as common centres? How should we imagine that millions of millions of planets and comets, of suns and systems, could peaceably pursue their courses, amidst an infinity of orbits crossing each other, if all the centres were in empty space, if the directions of their respective gravities were continually varying, and if there existed no common and preponderating gravitation, in condition to regulate the immense machine, and to keep it in perpetual order and motion?

Every consideration then leads us to lodge in the centres, bodies of a force equal to the preservation of good order in their respective realms, and to carry all these round a common body on which each of them depends, according to its station.

But who is capable of measuring the space and time which all these globes and worlds employ in revolving round that immense body, the throne of Nature, and the footstool of the Divinity? What painter, or poet, what human imagination, can figure the beauty and magnificence of this source of all that is beautiful, great, and magnificent, from whence order and harmony flow in eternal streams through the whole bounds of the universe? And even what we call by this extensive term, all the suns and planets, satellites, and comets, which together form this mighty fabric, may be no more than a portion of the works of God; bearing each a relation to a superior order of things as our orbit does to the solar system, and as this system bears to the universe.

This contemplation of the universe reduces the most stupendous objects with which we are acquainted to insignificant points; the earth itself shrinks to an atom; and the mightiest nations, with all their splendid achievements, are but the ephemera of an hour, or like the

animalcula which the microscope helps us to behold in a globule of water.

Compared with the extent and splendour, the power and duration of the state above us; of that region which is emphatically called "His Father's house," by Him who came to bring LIFE and IMMORTALITY to light through the Gospel, all terrestrial things become a bubble; they fade away into a vapour, and are dispelled by the rays of the morning.

Let us then, who are the heirs of such an eternal weight of glory, be careful not to reason after the things which are seen, but the things which are not seen; for the things which are seen are temporal, but the things which are not seen are eternal.

[Abridged from BASELEY'S *Glory of the Heavens*.]

### CREATION.

"LET there be light!" and chaos fled  
Back to his midnight cell,  
And light, the earliest gift of Heaven,  
On cradled nature fell.

Earth from the encroaching waters rose,  
Strong ocean knew his place,  
Bold rivers forced their unknown ways,  
Young streams began their race.

Forth came the sun, that monarch proud,  
And at his genial rays,  
The springing groves, and pencilled flowers,  
Put on new robes of praise.

But when his weary couch he sought,  
Behold the Regent Queen,  
Enthroned on silver car, pursued  
Her nightly course serene.

And glorious shone the arch of Heaven,  
With stars serenely bright,  
That bowed to every passing cloud  
Their coronets of light.

Life roamed along the verdant mead,  
Life glided through the flood,  
And tuneful mid the woven boughs,  
Watched o'er the nestling brood.

But then, with undisputed might,  
That Architect Divine,  
His own immortal essence breathed  
Into a clay-built shrine;

And stamped the image on the Man,  
And gave him kingly power,  
And brought him to a home of love  
In sinless Eden's bower.

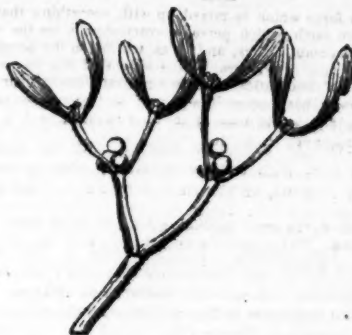
Then music, from undying harps,  
The young creation blest,  
And forth the first-born Sabbath spread  
Its dove-like wing of rest.

It came with holy gladness fraught,  
With pure benignant ray,  
And God himself the lesson taught,  
To keep the Sabbath day.—MRS. SIGOURNEY.

AN echo is nothing more than a reflected sound. When the aerial vibrations strike against any obstacle of sufficient magnitude, they are reflected back to the ear, and produce a repetition of the sound, which will appear to proceed from the point whence they are reflected, so that the apparent direction of the voice becomes completely changed by an echo. A considerable extent of level wall will sometimes produce it in great perfection; for a smooth surface reflects sounds much better than a rough one; but the circumstance which, perhaps, contributes more than any other to the perfection of an echo, is the form of the reflecting surface: a convex surface is a very bad reflector of sound, a flat one reflects very well, but a small degree of concavity is the form best adapted to the purpose. Fluid bodies will, also, under certain circumstances, so reflect sound as to produce echoes; the surface of water, especially at the bottom of a well, and sometimes even clouds will produce this effect.—*Philosophy in Sport.*

### VEGETABLE PARASITES.

#### II.



THE MISLETOE (*Viscum album*.)

IN a previous notice of vegetable parasites, those curious annual plants called dodder, formed the subject of description: the remaining British parasite is the Mistletoe, or Misseltoe, which receives the Latin name of *viscum*, from *vescus*, bird-lime, on account of the sticky nature of the berries. This plant is perennial, often existing to a great age. The root, by which it becomes firmly attached to a tree, is thick and woody; the stem is bushy and thickly jointed, but very smooth, as are also the leaves: these are of a lance-shape, but become broader and blunt at the extremity. The flowers are yellowish, seated on the stem; the berries white. In Herefordshire and Worcestershire, and wherever apple trees are cultivated to a considerable extent, the mistletoe is common; but in other situations it is less frequent. The plant is often cut from the trees, in severe winters, and given to sheep, who devour it with great eagerness, and who are popularly said to be thereby preserved from the disease called the rot.

The mistletoe grows on a variety of trees in different parts of England, but has only been found in one situation in Scotland. The common lime tree, the black poplar, the apple tree, and the oak, are subject to this parasite; but the mistletoe of the oak is now very rarely seen. A few specimens are occasionally found, and these are sufficient to prove that the oak does sometimes harbour this guest as in the days of the Druids; but the greater proportion of mistletoe is found on the apple tree, in the cider counties. In France, this plant is very abundant on the almond tree, and is common on many other trees. In Spain, and also in the neighbourhood of Jerusalem, it infests the olive.

Perhaps it was on account of the rarity of the mistletoe found on the oak, that it was held in so much greater estimation than that obtained from other trees. The Greeks and Romans were not ignorant of this plant. Pliny, speaking of that of the oak, says, "The Gauls held this plant in the highest veneration; and their magicians, whom they call Druids, consider nothing more sacred." The Druidical rites of the ancient Britons have been often described: those relating to the use of the mistletoe are not the least interesting among them. The original cause of the respect paid to this plant, can scarcely be penetrated at this distant era; but it is certain that its magical powers were believed in by Virgil and Ovid, and that the legends of the Saxons favoured the idea of its extraordinary properties. "We find," says Mr. Christie, "by the allusion of Virgil, who compared the golden bough in infernis to the mistletoe, that the use of this plant was not unknown to the religious ceremonies of the ancients, particularly the Greeks, of whose poets he was the acknowledged imitator." In Loudon's *Arboretum*, the following fable is given as an abridgment from the Saxon *Edda*. "Friga, the Scandinavian Venus, having discovered, through her skill in divination, that some evil threatened her son Balder

(Apollo), exacted an oath from fire, earth, air, and water, and everything that sprang from them, not to injure him. Loke, the evil spirit, finding, at a kind of tournament held soon after by the Scandinavian gods, (who it must be remembered were very warlike deities,) that none of the lances, &c., ever touched Balder, but glanced away, as though afraid of approaching him, suspected that they were under the influence of some charm, and determined to discover, if possible, what it was. For this purpose, he disguised himself as an old woman, and introducing himself to Friga, contrived to insinuate himself into her confidence; when Friga told him that everything that grew on the earth, flew in the air, swam in the sea, &c., had taken an oath not to hurt her son. Loke pointed to the mistletoe, which neither grew in earth, nor water, and asked her if it was included in the charm. Friga owned it was not; but added, that so feeble and insignificant a plant was not likely to injure Balder. Loke no sooner left Friga, than he formed, of the branches of the mistletoe, a sharp arrow, with which he instructed Heder (the blind god of fate) how to kill Balder. All nature mourned at the loss of the God of the Sun; and Hela (the goddess of death), moved by the universal grief, agreed to restore him if it could be proved that every living thing had shed tears. Every creature wept; and even the trees drooped their branches to the earth, dripping like rain. Loke alone remained with dry eyes; till the gods, enraged at his apathy, rushed upon him *en masse*, and chained him in the bottomless pit; where he soon shed tears enough to release Balder; but where he is still left, and occasionally, by his struggles to get free, causes earthquakes."

The author from whom we gain this fable, supposes that the customs connected with the mistletoe were therefore derived from our Saxon ancestors, who, on the restoration of Balder, dedicated the plant to their Venus, Friga, to place it entirely under her control, and prevent its being again used as an instrument of mischief. This appears a reasonable supposition, and sufficient to account for the mysterious rites and superstitious reverence of the ancient Druids. In the gathering of the plant, at the commencement of their year, we learn that these priests went in solemn procession into the forests, where they raised a grass altar at the foot of the finest oak: they also inscribed on the trunk of the tree the names of the most powerful among their deities. The chief Druid, clad in white robes, then ascended the tree, bearing a consecrated golden pruning hook, with which he cropped the mistletoe, and dropped it into a pure white cloth, held out beneath the tree by the remaining priests. If any part of the plant touched the ground, it was considered to be an omen of some dire misfortune about to fall upon the land. This ceremony was performed when the moon was six days old, and when it was concluded, a sacrifice was made of two white bulls.

Another account of the ceremony, slightly differing from this, is given by Stukely, in the *Medallic History of Carausius*. "This" (Christmas) "was the most respectable festival of our Druids, called yule tide; when mistletoe, which they called *all-heal*, was carried in their hands, and laid upon their altars, as an emblem of the salutiferous advent of Messiah. The mistletoe they cut off the trees with their upright hatchets of brass, called celts, and put upon the ends of their staffs, which they carried in their hands. Innumerable are these instruments found all over the British Isles. The custom," he adds, "is still preserved in the north, and was lately at York. On the eve of Christmas-day, they carry mistletoe to the high altar of the cathedral, and proclaim a public and universal liberty, pardon, and freedom, to all sorts of inferior or wicked people at the gates of the city, towards the four quarters of heaven."

In agreement with the latter part of this notice, are the lines of Gay, noticing the evergreens used in decking churches at Christmas,—

When rosemary and bays, the poet's crown,  
Are bawl'd in frequent cries through all the town;  
Then judge the festival of Christmass near,  
Christmass, the joyous period of the year!  
How with bright holly all the temples strow,  
With laurel green, and sacred mistletoe.

Yet Mr. Brand, noticing the above, is still of opinion

that mistletoe was never put up in churches except by mistake, or ignorance of the sextons, it being a heathenish and profane plant, distinguished in pagan rites. Many inquiries made on the subject confirmed him in this opinion. An old sexton at Teddington, in Middlesex, told him that some mistletoe was once put up in the church there, but the clergyman immediately ordered it to be removed.

But it is certain that the mistletoe was gathered with much solemnity on Christmas-eve, during the feudal ages, and hung up in the great hall with loud shouts and rejoicing.

On Christmas-eve the bells were rung;  
On Christmas-eve the mass was sung:  
That only night in all the year  
Saw the stole'd priest the chalice rear.  
The damsel donned her kirtle sheen;  
The hall was dressed with holly green:  
Forth to the woods did merry men go,  
To gather in the mistletoe.  
Then opened wide the baron's hall  
To vassal, tenant, serf, and all.

The custom of hanging up the entire plant in the kitchens of farm-houses, &c., at Christmas, is still retained in many parts of the country.

The use of the mistletoe, besides that already named, is for making bird-lime from the berries and bark, but the holly is said to answer the purpose better. The plant was also formerly employed as a remedy for epilepsy, but is now discarded from the *Materia Medica*. The blackbird, field-fare, and thrush, feed on its berries, especially the large species called the missel-thrush. This bird is considered as the chief instrument in the propagation of the mistletoe. After feeding on the berries, it wipes off such as may adhere to the outer part of the beak, by rubbing it against a branch of the tree on which it may have happened to alight at the close of its repast. Some of the seeds are thus left on the bark, and if it should prove a fitting receptacle for them, they germinate and root into it in the following spring. Several writers, both ancient and modern, had entertained the opinion that the mistletoe was propagated by the excrements of birds which had fed on the berries. It was our own naturalist, Pay, who first suggested the idea of trying whether the seed would vegetate without passing through the body of the bird; and when it was first tried by a London apothecary, it was attended with complete success. This person inserted a seed of the mistletoe into the bark of a white poplar tree which grew in his garden, and it germinated there. This was afterwards done by many persons on different trees, with the same result; and at length Duhamel proved that these seeds would germinate anywhere, provided they had sufficient moisture. Thus he made them sprout on living trees, on dead branches, bricks, tiles, stones, and in the earth; but none of the plants existed long, except those on living trees.

When the mistletoe seed is of an oval form, it generally sends out but one little rootlet; when it is triangular, or irregular, two or three generally appear. While in nearly all other plants the root descends, this is not the case with the mistletoe. In this plant the root first rises up, and then bends over until it reaches the body of the substance to which the seed has been attached. Having reached that point, the root swells out at its extremity, like the mouth-piece of a hunting-horn, fixes itself firmly to the bark, and extends itself between the inner bark and the soft wood where the sap is most abundant, sometimes sending up suckers at a distance from the point where the root entered. As the tree itself advances in growth, the roots of the mistletoe become embedded in the solid wood, but do not penetrate these by their own energy. As this plant thus derives its subsistence entirely from the branch to which it is annexed, it is natural to suppose that considerable injury results from the union. Both the ascending and

returning sap is partially absorbed by the parasite, and therefore the strength of the branch cannot fail to be impaired. When several plants occupy the same branch, they often deprive it of its nourishment so effectually as to cause its death, and eventually their own. In the cider counties, the mistletoe is therefore looked upon as an enemy, and by most cultivators, is carefully removed from the apple trees as soon as it develops itself. It seems, indeed, to flourish with extraordinary luxuriance on the apple tree, and in natural circumstances is supposed to exist as long as the tree itself. The largest plant of mistletoe ever seen by the writer, occupied the centre of an aged apple tree, itself of most unusual proportions. The propagation of the mistletoe has lately been attempted in nurseries. In the *Gardener's Magazine*, it is recorded that Mr. Moss, of Malvern, near Worcester, has invented an excellent plan of raising the mistletoe, by engrafting it, standard high, on young apple and pear trees in his nursery. The grafts are introduced in the first or second week in May, and are never lower than five feet, nor higher than ten feet from the ground. When the graft is not more than half an inch in diameter, an incision is made in the bark, into which a thin slice of mistletoe is inserted, having a bud and leaf at the end. In grafting longer pieces, a notch is cut out of the branch, an incision made below it, and a shoulder left on the graft to rest on the notch in the manner of crown-grafting. It is necessary to observe that the spaces between the joints will not do for grafting; there must be a joint let into the bark of the stock. About the middle of May is the best time for budding; and the operation differs in retaining a heel of wood below the bud, for insertion. After apple and pear trees, the next best stocks for raising the mistletoe, are strong growing willow and poplar.

#### SOME ACCOUNT OF THE SYRIAN CHRISTIANS IN INDIA.

##### III.

THE Indian church was now outwardly Roman Catholic, and no opposition for half a century was offered to the rule of the Jesuits, which they exercised with far more harshness than was consistent with their usual policy; but the submission was apparent only, and the war between Spain and Portugal, together with the appearance of the Dutch on the Malabar coast, was the signal for a general resistance. In 1563, an assembly was held in the ancient church of Alanghal, where the Christians, with an oath sworn on the Bible, renounced obedience to the Jesuits, and elevated one of their own body to the episcopal dignity, which they determined he should hold until a more regular metropolitan could be obtained from Babylon or Antioch. The watchful jealousy of the Jesuits prevented any communication with the Nestorian church in Asia, but letters were sent to the Coptic patriarch in Egypt, who dispatched a bishop named Atalla, who reached India in the same year; Atalla, on his arrival, was thrown into prison at Cochin, against which place a body of twenty-five thousand Christians well armed, immediately marched, with the resolution of liberating their bishop; but the Portuguese, fearing the event, removed Atalla in the dead of night, and conveyed him on board a vessel in the harbour, from whence he never returned.

But the Christians were now comparatively free, and they returned at once to their ancient customs. The Romish church, however, had not renounced the idea of bringing the church under subjection, but, rendered wise by experience, dispatched a Carmelite, named Jose di Santa Maria, who was commanded to confine his views simply to the subjection of the church to the see of Rome, but in other matters to allow the Christians to observe the institutions they had derived from their ancestors. This policy was in some measure effectual;

not indeed in making the Indian church Roman, but in producing a division; about one half of the body agreeing to acknowledge the supremacy of the Pope, but retaining their own language and ritual. The descendants of this section of the church are called Romo-Syrians: they are quite distinct from the Roman Catholic Christians, who are generally converts from the most depraved classes of natives.

But the conduct of the Portuguese had been marked by a spirit of violence and tyranny, which had engendered the most bitter feeling on the part of the native Christians; and this feeling was taken advantage of by the Dutch, who, with their aid, attacked and took Quilon at the close of 1661: this conquest was followed by the capture of Cochin about a year after, which terminated the power of Portugal in that part of India, and restored to the Indian Christians the liberty they had enjoyed before their arrival, and which has since suffered no abatement.

The expulsion of the Jesuits, left liberty to the Indian church, but did not restore peace. The division between the Syrians and Romo-Syrians still subsisted, and about this time, it is hardly known how, but probably under the Coptic successors of Atalla, the heresy of Nestorianism was abandoned for that of the Monophysites; so that according to the learned Archdeacon Robinson, there is not now a trace of Nestorianism left among them. It appears from the whole tenor of their history, that the Christians of India have been contented to worship God under the guidance of their pastors, and according to the forms of their ancient liturgy, without a desire to dive into the mysteries of theology, willingly leaving doctrinal points to their spiritual guides. But the rival churches still maintained dissensions, and the Hindu princes took advantage of these dissensions to inflict fines on, and even to plunder the unhappy Christians, until these were reduced to great poverty. This period of their history affords little more interesting than the succession of bishops, whose time was usually occupied in quarrelling with each other, until towards the close of the eighteenth century, when the history and character of this primitive people began to excite the attention of the British Resident at Travancore. His attempts to benefit them met with some difficulty in the first instance, from the dissensions between parties. But these were gradually soothed by prudent management; and arrangements were made to found a college at Cottayam, for the education of native Christians, towards which the sum of twenty thousand rupees was contributed by the Rani or queen of Travancore, an intelligent and generous princess, who evinced much interest in the condition of these people, and showed a desire to improve their temporal condition by appointing several of them to lucrative public offices. Three English missionaries were attached to the college, with the full approbation of the clergy and people; these missionaries manage the temporal and spiritual concerns of the church, under the direction of the bishop; they are the medium of communication between the church and the government, and they zealously watch over the education of youth, the circulation of the Scriptures in the Syriac and vernacular languages, and the restoration of the ancient ritual.

The present condition of the Christians of St. Thomas is one of poverty and depression; their mutual fears and jealousies have terminated in an irreconcilable division; under the rule of the Jesuits, they lowered the purer system of religion and morals which anciently distinguished them; the interruption for nearly a century of the intercourse with Syria, which had kept up much of their peculiar feeling, and their consequent decline in the knowledge of the language of the Scriptures, all have had an unfavourable influence upon them; but, in spite of the causes of deterioration by which they have been influenced, they have retained many of their ancient virtues: and when the impartial rule under which

they have for some years lived shall have had time to produce its necessary influence, considerable amelioration may be expected. They are remarkable for simplicity and obedience to authority, are peaceable and valuable subjects, of acknowledged veracity and fidelity, frank in deportment, kind in disposition, and free from the dissolute manners of other tribes in the country. They are affectionate husbands and fathers; their women are free from any sort of restraint, and are modest and retired in their habits. All are strikingly superior to the tribes around them, and although they have no longer their ancient high character and station, they are still much respected by the best part of the native community. Most of them are poor, and gain a livelihood by constant labour; but many engage in trade; and although none are affluent, several individuals among them are in easy circumstances.

Their clergy are generally poor: the bishop is maintained from the funds of the College of Cottayam, which allows him six hundred rupees per annum. He is frugal in his living, and plain in dress. His ordinary costume is a loose vesture of dark red silk, with a large golden cross suspended from his neck: on occasions of ceremony, a robe of yellow muslin is thrown over his vesture, and he then bears the mitre and crosier.

The priests are called Catanars: they are chosen from among the best families, but have been designated as very ignorant, though the influence of the College of Cottayam is gradually diminishing this evil. A few of them are married, but the feeling of the Church is in favour of their celibacy, which probably arises from the Romish influence of the seventeenth century. They allow their beards to grow, and to descend over their breasts; and the hair of the head is cut short round to resemble a crown or tonsure. In their ordinary costume they wear a loose white shirt over large trousers, and cover their heads with a square piece of cloth or silk, the ends of which fall down their back. When they officiate in the church, the head is uncovered, and they put a long white gown over all the rest of their dress.

There is nothing in the dress of the common people to distinguish them from other natives of their own condition, with the exception that the women are more decorously covered. The men wear a piece of white cloth round the middle of the body, its quality constituting the only difference between the dress of the rich and poor. They shave their beards, but let the hair of the head grow to a great length, which is sometimes allowed to hang down on the back, and sometimes is tied up in a knot behind, and fastened with a metal cross. The women wear large bangles of metal round their ankles, and an additional garment over the upper part of the person; and when they go to church, or visit their pastor, they put over all a cloth which reaches from the top of the head to the ground, and leaves nothing visible but the face. Both sexes are taller and more robust than the Nairs, and altogether are of a fine and handsome appearance; but the women have rarely the delicate forms and features so often found among the latter, which probably arises from the life of labour they lead, as some of the more affluent are said to be extremely fair, and to possess great beauty.

Their numbers are reckoned by one authority at about 160,000; of whom 90,000 are said to belong to the Syro-Romans, and 70,000 to the pure Syrians. Another account gives the numbers 66,000 and 33,000, respectively: the latter is the more probable, because the whole number of native Christians in Travancore, including the Roman Catholics, has been stated officially at 160,000. The number of parishes is given by three authorities as 55, 57, and 59, for the Syrians, and at 64, 98, and 101, for the Syro-Romans: the first of these is probably a clerical error, and should be 94.

Their oldest churches are long, narrow buildings, with low entrances, having large buttresses and sloping

roofs. The modern churches partake somewhat of the style introduced by the Portuguese into India. They have very little ornament, and are generally ill kept and dirty; many are much dilapidated, and some are totally ruined. Among these we may mention the ancient Cathedral of Angamale, and the great church of Paroor, which was capable of containing 1500 persons; these were wantonly demolished by Tippoo Sultan in 1790.

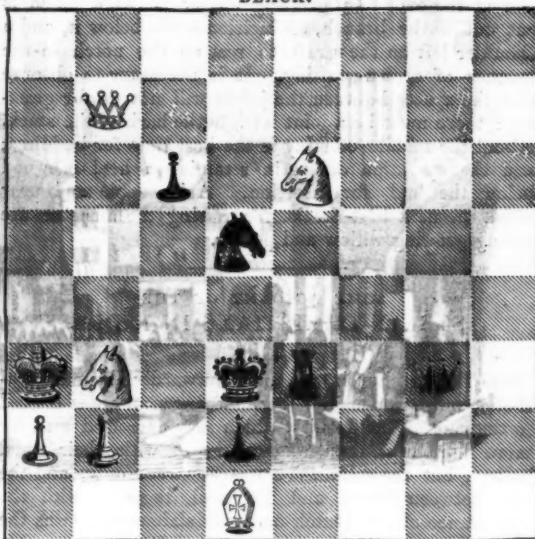
It is believed by those best acquainted with the disposition of the Indian Christians, that there would be no great difficulty in bringing them all into one united body, were it not for the jealousy of their priests, who even refuse to marry persons of the differing sects. This circumstance appears to be the only obstacle to so desirable a consummation.

## CURIOUS CHESS PROBLEMS.

### XV.

In this problem White having to move is to Checkmate in four moves, but upon this curious condition, that he give Check every move, and compel his adversary to do so likewise.

BLACK.



WHITE.

THAT happy state of mind so rarely possessed, in which we can say, *I have enough*, is the highest attainment of philosophy. Happiness consists not in possessing much, but in being content with what we possess. He who wants little always has enough.—ZIMMERMANN.

MARK what another says; for many are

Full of themselves, and answer their own notion.

Take all unto thee, then, with equal care,

Balance each dram of reason like a potion.

If truth be with thy friend, be with them both,

Share in the conquest, and confess a troth.—HERBERT.

THE elephant is said to attain to its full growth and maturity in eighteen or twenty years; the horse and ass in five; the mouse and rabbit in five or six weeks. The duration of life is nearly proportionate; a mouse and a rabbit are aged in three and six years; horses and asses live to thirty, and even to forty years; a lion, which is full grown in five or six years, attained to the age of seventy in the Tower menagerie; the elephant reaches one hundred or two hundred years; the whale suckles its cubs for a whole year. They are probably long-lived, but in our eagerness for oil we have no leisure for experiments or physical inquiry.—J. S. DUNCAN.